

Appl. No. 09/844,281
Amtd. dated August 15, 2005
AMENDMENT AND REPLY UNDER 37 C.F.R. § 1.114
(RCE)
Examining Group 1645

PATENT

Listing of Claims:

1-15. (canceled)

16. (Currently amended) A diagnostic kit comprising an isolated antibody, or a fragment thereof, that binds EA1 antigen of *B. anthracis* and specifically binds spores or vegetative cells of *B. anthracis*, but not *B. thuringiensis*.

17. (Original) The diagnostic kit of claim 16 which incorporates a colloidal particle based lateral flow detection system.

18. (Original) The diagnostic kit of claim 16 which incorporates a detection system selected from the group consisting of a carbon based lateral flow system; a fluorescent based assay system, a chemiluminescent system, an up converting phosphors system, a refractive indexed based detection system, a magnetic bead or latex bead system, and a micro array system.

19. (Currently amended) A diagnostic kit comprising an isolated antibody, or a fragment thereof, that specifically binds EA1 antigen of *B. anthracis* and specifically binds spores of *B. anthracis* and not *B. thuringiensis*, and incorporates a colloidal particle based lateral flow detection system.

20-43. (canceled)

44. (Currently amended) The diagnostic kit of claim 16, wherein said isolated antibody, or a fragment thereof, does not specifically bind *B. thuringiensis* and *B. cereus*.

45-49. (canceled)

50. (new) The kit of claim 16, wherein said antibody or fragment thereof is *B. anthracis* species specific.

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51. (new) The kit of claim 16, wherein said antibody an IgA, IgD, IgE, IgG, or IgM.

52. (new) The kit of claim 16, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.

53. (new) The kit of claim 16, wherein said antibody or fragment thereof specifically binds *B. anthracis* spores.

54. (new) The kit of claim 16, wherein said antibody or fragment thereof specifically binds *B. anthracis* vegetative cells..

55. (new) The kit of claim 16, wherein said antibody is a monoclonal antibody.

56. (new) The kit of claim 16, wherein said antibody is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody or an affinity-purified antibody.

57. (new) The kit of claim 16, wherein said fragment is an Fab or Fv fragment.

58. (new) The kit of claim 16, wherein said antibody is produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632.

59. (new) An isolated antibody, or fragment thereof, that binds EA1 antigen of *B. anthracis* and specifically binds spores or vegetative cells of *B. anthracis*, but not *B. thuringiensis*.

60. (new) The antibody or fragment thereof of claim 59, wherein said antibody or fragment thereof is *B. anthracis* species specific.

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61. (new) The antibody of claim 59, wherein said antibody an IgA, IgD, IgE, IgG, or IgM.

62. (new) The antibody or fragment thereof of claim 59, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof; and wherein said antibody is optionally a monoclonal antibody.

63. (new) The antibody or fragment thereof of claim 59, wherein said antibody is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody; an affinity-purified antibody; or an antibody produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632; or
wherein said fragment is an Fab or Fv fragment.

64. (new) A method of detecting *B. anthracis* in a sample, said method comprising
contacting an antibody, or fragment thereof, according to claim 59 with a sample to form a complex between said antibody, or fragment, and *B. anthracis* in said sample, and detecting said complex.